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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,453	10/01/2003	Adrian Peter Wivagg	NSD2002-014	7556

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EXAMINER

ADAMS, GREGORY W

ART UNIT PAPER NUMBER

3652

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/676,453	WIVAGG ET AL.	
	Examiner	Art Unit	
	Gregory W. Adams	3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Referring to lines 5-9, a laterally extending arm is not vertical although it is part of a "substantially vertically supported column assembly".

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-12 & 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows et al. (US 5,878,099) (previously cited) in view of Kurosawa et al. (US 6,058,153) (previously cited), Peirson et al. (US 5,456,130) and Gay et al. (US 6,145,583) (previously cited).

With respect to claims 1 & 4-6 & 11-12, Burrows et al. disclose a system for delivering a tool 100 comprising a trolley 118 on an underlying tubular body upper lip 106, 110, a vertical column assembly 134, having a first part 132, 138 mounted on a trolley 118, and a laterally extending arm 136, a pole assembly 122 attached to a laterally extending arm 118, and a tool (col. 3, lns. 8-10) attached to a pole 122.

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Burrows et al. does not disclose a motorized trolley that rides on an underlying tubular body outboard side or a pole assembly.

Kurosawa et al. discloses a system for delivering a tool comprising a motorized trolley 6, riding on an underlying tubular body upper lip and a continuous 360-degree, track assembly, a vertical column assembly 9, having a first part rotatably mounted on a trolley, and a laterally extending arm 8, arm is not vertical although it is part of a vertical col. Assembly wherein rotating a vertical column assembly, positions a laterally extending arm peripheral end portion 8, on a underlying tubular body inboard side, or on an underlying tubular body outboard side, and a tool 10, 24. Kurosawa et al. teach a motorized trolley riding on an underlying tubular body outboard side to constrain steam line interference, and to position a tool to perform preventive maintenance, and further since the turntable is rotated on the guide rail placed on an upper lip 5, the turntable does not contact the upper flange. Accordingly, the upper flange can be prevented from being damaged by carriage rotation wherein compressive remaining stress can be added to both of the outer surface and the inner surface of the core shroud. Therefore, it is possible to shorten the time for performing preventive maintenance to the core shroud. Col. 3, Ins. 3-55. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Burrows et al. to include a motorized trolley on a underlying tubular body upper lip and continuous, 360-degree track assembly, as per the teachings of Kurosawa et al., to optimize maintenance and reduce stress to a vessel.

Burrows et al. discloses a column assembly but does not disclose a rotatable column assembly. Peirson et al. disclose a vertical column assembly 12 rotating about vertical axis 14 and having a first part 16 and a laterally extending arm 60 wherein rotating a vertical column assembly positions a laterally extending arm peripheral end portion 60 and wherein a laterally extending arm extends at a downwardly angle between 45 and 60 degrees. Peirson et al. teach rotating a column and laterally extending arm(s) to manipulate loads with repetitive and repeatable positioning of a work tool 120. Further, Peirson's pantographic laterally extending arm(s) which maintains a load within a horizontal plane when applied forces are horizontal. Cols. 1-4. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the column assembly of Burrows et al. to provide a rotatable column and laterally extending arm, as per the teachings of Peirson et al., to position a work tool for horizontal and vertical positioning along a radial arc.

Gay et al. disclose an extendable pole assembly having a first part 12 and second part 16 which extend a tool 20. Gay teaches a pole assembly with two parts and the ability to extend and maneuver a tool around complex nuclear reactor vessel geometry and to extend thirty-two feet or more due to the lengths needed during inspection and/or repair. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Burrows et al., to include an extendable pole and tool, as per the teachings of Gay et al., to navigate complex and lengthy spaces.

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With respect to claim 7, Burrows et al. discloses maintaining a pole assembly 122 in a vertical orientation.

With respect to claim 8, Burrows et al. does not disclose a remotely operated cam. Kurosawa et al. discloses a cam 16a, such that the carriage remains within a track. Col. 7, Ins. 1-40. It is noted that Kurosawa's clamping force is radial, i.e. directed toward a vessel center. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Burrows et al. to clamp a cam on a track, as per the teachings of Kurosawa et al., to retain a carriage squarely on a track.

With respect to claim 9, Burrows et al. do not disclose a column assembly first part that rotates 180 degrees. Peirson et al. disclose 180 degrees of rotation of a vertical column assembly 12 rotating about vertical axis 14 and having a first part 16 and a laterally extending arm 60 wherein rotating a vertical column assembly radially positions a laterally extending arm peripheral end portion 60. Peirson et al. teach rotating a column and laterally extending arm to manipulate loads with repetitive and repeatable positioning of a work tool 120. Cols. 1-4. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the column assembly of Burrows et al. to allow 180-degree rotation, as per the teachings of Peirson et al., to position a work tool.

With respect to claim 10, Burrows does not disclose a tool that rotates 180 degrees. Gay et al. disclose a tool that rotates 180 degrees. Gay teaches 180 degrees of rotation to extend to and maneuver a tool around complex nuclear reactor vessel

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geometry and to extend thirty-two feet or more due to the lengths needing inspection and/or repair. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Burrows et al., to allow 180 degrees of rotation of a tool, as per the teachings of Gay et al., to navigate complex and length spaces.

With respect to claim 15, Burrows et al. do not disclose nested telescoping sections. Gays discloses an extendable pole assembly 12 that includes nested telescoping sections. Gay teaches a pole assembly with telescoping sections for its ability to extend to and maneuver a tool around complex nuclear reactor vessel geometry and to extend thirty-two feet or more due to the lengths needing inspection and/or repair. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Burrows et al., to include an extendable pole and tool, as per the teachings of Gay et al., to navigate complex and lengthy spaces.

With respect to claim 16, Burrows et al. does not disclose a square telescoping pole. Gay teaches a pole that extends and maneuvers a tool around complex nuclear reactor vessel geometry needing inspection and/or repair and attaches no significance to a telescoping cross-section. Cols. 1-2. Applicants' choice of a square cross-section is a merely a change in size that provides no benefit or improvement over the prior art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the extendable pole of Burrows et al. to allow for a

Greg- you're changing the pole from the 2nd arg reference this is modifying the modifying reference

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square cross-section, as per the teachings of Gay et al., to reach tight spaces within complex geometry.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows et al. (US 5,878,099) in view of Kurosawa et al. (US 6,058,153), Gay et al. (US 6,145,583) and Hinds (US 4,349,837). Burrows et al. do not disclose a camera on a column assembly. Hinds discloses a camera 27 on top of a stationary part 26. Hinds teaches a camera mounted on a column assembly for operator assisted remote manipulation of a tool. Col. 2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Burrows et al. to include a camera on top of a column stationary part, as per the teachings of Hinds, to assist an operator in remotely operating a tool.

What happened to
Peirson?

4. Claims 17 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows et al. (US 5,878,099) in view of Kurosawa et al. (US 6,058,153), Peirson et al. (US 5,456,130), Gay et al. (US 6,145,583) and Silverman et al. (US 5,205,174) (previously cited). Burrows et al. disclose a system for delivering a tool comprising a camera to clean and subsequently inspect reactor vessel components, and does not disclose a hydrolaser. Referring to FIGS. 1-4 Silverman et al. discloses a system for delivering a tool within a reactor comprising a tool 6 including a camera 6, and a hydrolaser 34 to direct high pressure fluid stream (col. 6, Ins. 8-32), a hydrolaser including two spray nozzles 34 to prepare and inspect a submerged surface of a fluid reservoir. Col. 1, Ins. 5-35. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tool and camera

But you said in # 3 that
Burrows does not teach a camera.

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of Burrow et al. to include a tool comprising a camera and hydrolaser with spray nozzles, as per the teachings of Silverman et al., such that to prepare and inspect a submerged surface of a fluid reservoir.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter: Claim 3 is allowable over the prior art as there is no disclosure or teaching of a camera movable along a vertical axis mounted on a rotating column assembly, for viewing a inspection tool as it is lowered into a vessel. Claims 13 & 14 are allowable over the prior art as there is no disclosure or teaching of laterally extending arms having tracks wherein arms are attached to a rotatable column assembly and attached to a pole,

Response to Arguments

Applicant's arguments with respect to claim 1-18 have been considered but are moot in view of the new ground(s) of rejection. Claim 19 stands withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th, 8:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GWA



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